



## FACT SHEET

### What is OptiGuard?

Optiguard is a finely milled natural mineral called zeolite and mined in New Zealand. It has a very porous three-dimensional structure and is negatively charged, allowing it to absorb not only water but also minerals and other compounds and then can slowly release them again later.

### Is it similar to bentonite?

Not really. Bentonite is a clay substance, whereas zeolites are crystallised aluminosilicate minerals found in lava rock deposits. Although both are absorbents, the structures are different.

### How will it help my calves?

Research has shown that low levels of zeolites, less than 40g, may help prevent scours in young calves. Although, it is not exactly clear how it does this, it is most likely related to the following:

1. It helps with the absorption of immunoglobulin G antibodies. Research has shown that the levels in the calf's blood increase after feeding zeolites with colostrum. Remember, the calf's gut is only permeable to large molecules such as antibodies for the first 24-48 hrs (therefore feed colostrum as soon as possible after birth!) When zeolites are included in the colostrum or milk it may make the digesta a little bit drier, so it moves a bit slower through the tract and allows more time for the antibodies to be absorbed.
2. Zeolites are well known to bind mycotoxins, but can also bind bacterial toxins. Some of the nasty bacteria causing scours work by producing toxins that will be absorbed by the body and this is what makes the animal sick. By binding toxins, zeolites prevent them from entering the body from the gut.
3. When nasty bacteria build up in the gut, the acidity in the gut can increase. Zeolite's buffering capacity may help to manage the acidity in the gut.

### How safe is it for my calves?

Overseas trials have shown that zeolites at levels of 1% or less of the calf's body weight, can be fed without any adverse effects for several months.

### When fed ad-lib can they eat too much of it?

This is unlikely. It is a mineral and animals don't tend to over-eat minerals as they are not particularly tasty, like e.g. calf muesli. Animals tend to self-regulate when it comes to free-choice minerals. It is well-known that animals in the wild, including ruminants, may practice geophagy, or "eating dirt" to correct nutritional imbalances or perhaps even to "self-medicate."

Above information has been supplied to Blue Pacific Minerals by an independent scientist. Any queries, please contact Blue Pacific Minerals on 0800 678 444.

